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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/30/2005

Kjell Olav Stinessen

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466

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06/09/2009

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EXAMINER

BUCK, MATTHEW R

ART UNIT

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3671

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,818	Applicant(s) STINESSEN ET AL.	
	Examiner MATTHEW R. BUCK	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 20 is/are rejected.
- 7) ☒ Claim(s) 4-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the penetrators must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: it is unclear how the penetrators are involved in the claimed invention and/or how they are positioned relative to other components.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stinessen (5398762) and further in view of Grob et al. (6464469).

6. As concerns claim 1, Stinessen shows a pressure housing (21) which comprises: an electric motor (8) and a compressor (3), drivably connected by at least one shaft (9 and 11); said compressor and motor being mutually isolated by at least one seal (17), thereby dividing said pressure housing into a first and a second compartment comprising the compressor and motor, respectively. Stinessen lacks to show at least one shaft is supported by magnetic bearings controlled by a control unit, said control unit being placed externally of said pressure housing, and connected to said magnetic bearings by means of wire connections or sub-sea mateable connectors. However,

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Grob et al. teaches the elements of claim 1 (5, 17 and 15a, b, c, d). One of ordinary skill in the art at the time the invention was made would have been motivated to modify the structure taught in Stinessen with the elements taught in Grob et al. because magnetic bearings are known to provide a more efficient means of supporting a shaft compared to oil-lubricated bearings.

7. As concerns claims 2 and 3, Stinessen shows wherein the pressure housing is oriented vertically, and wherein the motor is placed above the compressor, wherein the second compartment is located above the first compartment (column 5, lines 56+).

8. As concerns claim 20, Stinessen shows a pressure housing (21) comprising an electric motor (8) and a compressor (3); said compressor and motor being drivably connected by at least one shaft (9, 11); and said compressor and motor being mutually isolated by at least one seal (17), thereby dividing said pressure housing into a first and a second compartment comprising the compressor and motor, respectively. Stinessen lacks to show said at least one shaft being supported by magnetic bearings; said magnetic bearings being controlled a control unit; said control unit being placed externally of said pressure housing and contained inside of a separate pressure housing filled with an inert gas or inert liquid; said control unit being connected to said magnetic bearings by means of wire connections or subsea mateable connectors; and penetrators through the walls of said pressure housing and said separate pressure housing prevent ingress of seawater. However, Grob et al. teaches said at least one shaft (13) being supported by magnetic bearings (5); said magnetic bearings being controlled a control unit (17); said control unit being placed externally (Fig. 4) of said

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pressure housing (6); and said control unit being connected to said magnetic bearings by means of wire connections (15a, b, c, d). Grob et al. lacks to show wherein the control unit is contained inside of a separate pressure housing filled with an inert gas or inert liquid; and penetrators through the walls of said pressure housing and said separate pressure housing prevent ingress of seawater. However, Stinessen already presents the concept of containing components in a sealed, pressure housing when working in a subsea environment, which it would have been obvious to one having ordinary skill in the art at the time the invention was made that placing a control unit external to the pressure housing would require the control unit to also be placed inside a sealed, pressure housing with a suitable gas atmosphere. It would also have been obvious to one having ordinary skill in the art at the time the invention was made that the wire connections with the pressure housing, shown in Grob et al., would prevent the ingress of a fluid since the pressure housing is hermetically sealed and for the invention to function properly, it would imply that the connections and/or penetrators through the wall of the pressure housing would have to prevent the exchange of fluid between the pressure housing and the surrounding environment. One of ordinary skill in the art at the time the invention was made would have been motivated to modify the structure taught in Stinessen with the elements taught in Grob et al. for the reasons stated above. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made since the expected result of this configuration improves efficiency of the sub-sea gas compressor module design.

Allowable Subject Matter

9. Claims 4-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 08/29/2008 have been fully considered but they are not persuasive.

11. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., placing the regulating apparatus inside a separate pressure housing close to the compressor module) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

12. In response to applicant's argument that one of ordinary skill in the art would have been discouraged from combining the features of a subsea compressor with the regulating apparatus of a non-subsea design, *Stinessen* is used to teach and establish a pressure housing with a motor and a compressor used at a subsea location and thus be able to withstand the environment, whereas *Grob* is used to teach a shaft supported by magnetic bearings controlled by a control unit, in which to be used in a pressure housing with a motor and a compressor similar to the structure shown in *Stinessen*. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is

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some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references show compressor systems that have a motor, a compressor, and a shaft supported by bearings contained in a pressure housing which is sealed to their respective environment and one having ordinary skill in the art at the time the invention was made would have been motivated to combine the references since based on the equivalence of the bearings for their use in the art, the selection of any of these known equivalents would be within the level of ordinary skill in the art.

13. In response to applicant's arguments, the recitation that Grob does not teach the elements for use with a subsea gas compressor has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). No where in the body of the claim is this positively recited.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW R. BUCK whose telephone number is (571) 270-3653. The examiner can normally be reached on Monday through Friday 7:30am - 5:00pm E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas A Beach/
Primary Examiner, Art Unit 3671

mrB